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*Indian Standard*  
SPECIFICATION FOR  
DOBBY BARRELS

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# Indian Standard

## SPECIFICATION FOR DOBBY BARRELS

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**INDIAN STANDARDS INSTITUTION  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG**

NEW DELHI 110002

# *Indian Standard*

## SPECIFICATION FOR DOBBY BARRELS

### 0. FOREWORD

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 15 December 1967, after the draft finalized by the Textile Mill Accessories ( Other than Jute ) Sectional Committee had been approved by the Textile Division Council.

**0.2** This standard is based on the manufacturing practices followed in the country in this field.

**0.3** This standard contains clauses 3.2.1 and 6.1.1 which call for agreement between the buyer and the seller for permitting him to use his option for selection to suit his requirements.

**0.4** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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### 1. SCOPE

**1.1** This standard prescribes the requirements of dobby barrels for use in conjunction with wooden lags conforming to IS : 3496-1966†.

### 2. NOMENCLATURE

**2.1** For the purpose of this standard, the nomenclature of the different components of the dobby barrel shall be as indicated in Fig. 1.

### 3. MANUFACTURE

**3.1 General Design** — The dobby barrels should be generally as illustrated in Fig. 1.

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\*Rules for rounding off numerical values ( revised ).

†Specification for dobby lags and pegs.

### 3.2 Material

**3.2.1 Barrel** — The barrel should be manufactured out of well-seasoned timber of any of the species listed below as agreed to between the buyer and the seller:

TRADE NAME	BOTANICAL NAME
<b>Aini</b>	<i>Artocarpus hirsuta</i> Lamk.
<b>Beech</b>	<i>Fagus</i> sp.
<b>Birch</b>	<i>Betula</i> sp.
<b>Blackwood ( Rosewood )</b>	<i>Dalbergia latifolia</i> Roxb.
<b>Chickrassy</b>	<i>Chukrasia tabularis</i> Adr. Juss.
<b>Haldu</b>	<i>Adina cordifolia</i> Hook. f.
<b>Indian oak</b>	<i>Quercus</i> sp.
<b>Kaim ( Kalam )</b>	<i>Mitragyna parvifolia</i> ( Roxb. ) Korth.
<b>Sissoo</b>	<i>Dalbergia sissoo</i> Roxb.
<b>Teak</b>	<i>Tectona grandis</i> Linn. f.

NOTE — A short description of the timbers and recommended code of manufacture of blanks for barrels are given in Appendix A.

**3.2.2 Barrel Shaft** — The shaft shall be made of tempered carbon steel or case hardened mild steel rod.

**3.2.3 Discs** — Two cast-iron discs shall be screwed one on each end of the wooden barrel as shown in Fig. 1.

**3.3 Finish** — The wooden portion of the dobbie barrel should be varnished and should have a smooth finish.

## 4. REQUIREMENTS

**4.1 Dimensions** — The dimensions of dobbie barrels shall conform to the requirements of Table 1 when read with Fig. 1.

**4.1.1** Each barrel in the lot shall be adjudged by means of suitable measuring scales and gauges for its conformity to the dimensions specified in Table 1.

NOTE — All the dobbie barrels of the same overall length and manufactured from the same raw materials delivered to a buyer against one despatch note shall constitute a lot.

## 5. MARKING

**5.1** Each dobbie barrel shall be marked at an appropriate place with the manufacturer's name, initials or trade-mark.





TABLE 1 DIMENSIONS OF DOBBY BARRELS

( Clause 4.1, and Fig. 1 )

DIMENSION	MINIMUM	MAXIMUM
	mm	mm
Depth of groove <i>A</i>	11.1	12.0
Width of groove at the top <i>B</i>	17.0	17.5
Width of the projecting portion <i>C</i>	10.4	11.3
$\alpha$	46°	48°
$\beta$	110°	114°
Diameter of barrel shaft ( spindle ) <i>d</i>	12.5	15.0
Diameter of barrel <i>d</i> <sub>1</sub>	71	75
Length of the barrel <i>L</i>	12 × No. of jacks — 0.5 <i>E</i> + 2 <i>J</i> where	
	<i>E</i> = pitch of lag, and	
	<i>J</i> = distance from the first and last holes to the corresponding end of lag ( see Fig. 1 ).	

NOTE — For dimensions *E* and *J*, see IS : 3496-1966 'Specification for dobbie lags and pegs'

### 5.1.1 Dobby barrels may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution ( Certification Marks ) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

## 6. PACKING

6.1 Each barrel shall be wrapped in kraft paper or waterproof packing paper.

NOTE — A recommended method for packing the dobbie barrels is illustrated in Fig. 2. This method helps in keeping the barrels free from striking against each other and against the walls of the case and thus preventing them to be chipped off.

6.1.1 The number of dobbie barrels to be packed in a case shall be as agreed upon between the buyer and the seller.

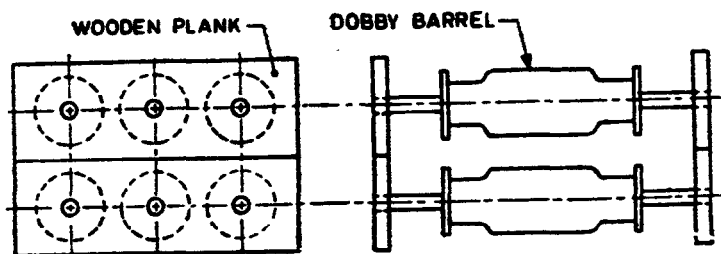


FIG. 2 METHOD OF PACKING

6.2 Each case shall bear the following information:

- a) The number of dobbie barrels in the case; and
- b) Manufacturer's name, initials or trade-mark, if any.

## APPENDIX A

( *Note under Clause 3.2.1* )

### A-1. SHORT DESCRIPTION OF TIMBERS

**A-1.1 Aini** — with straight or interlocked grain; very coarse and quite even in texture; light in weight and with somewhat rough feel; not very durable; sap-wood white, heart-wood golden yellow turning to the colour of old gold after a few hours of exposure.

**A-1.2 Beech** — straight grained; close and even in texture; needs careful seasoning; fairly tough and strong, easy to work; whitish or pale brown in colour.

**A-1.3 Birch** — straight grained; fine and even in texture, may be seasoned with a little care; moderately strong, easy to work; white to light brown in colour.

**A-1.4 Blackwood ( Rosewood )** — narrowly interlocked grained in long straight lines; medium coarse textured; moderately heavy to heavy; moderately strong but very hard; easy to work and machine to a smooth finish ( unless excessive interlocked fibres are present ); very durable and seasons without difficulty.

**A-1.5 Chickrassy** — with irregularly interlocked uneven grain; even and medium fine textured; light to moderately heavy; fairly strong and moderately hard; works easily to a good surface; seasons easily.

**A-1.6 Haldu** — fairly straight grained but sometimes with broadly interlocked bands of fibres; fine and even in texture; needs little care in seasoning; moderately strong; easy to saw and machine; lustrous yellow or straw coloured.

**A-1.7 Indian Oak** — straight or often irregularly grained; medium fine to coarse and uneven in texture; moderately heavy to heavy; moderately hard to hard; lustrous when first exposed; with quite smooth to rough feel; without characteristic odour or taste.

**A-1.8 Kaim (Kalam)** — usually straight grained; but sometimes with interlocked grains; needs careful seasoning; fairly hard and strong; easy to saw and machine; pale yellow when freshly cut; light brown on exposure.

**A-1.9 Sissoo** — interlocked grained; medium coarse in texture; easy to season with usual precautions in stacking; slightly heavier than teak; good deal harder than teak; strong; fairly easy to work; very durable; light golden brown to dark brown in colour.

**A-1.10 Teak** — straight-grained or often very wavy grained when grown in dry localities; rather coarse and uneven textured; moderately heavy; moderately hard and strong; oily and extremely durable; easy to work with good machining qualities; seasons well without difficulty and is an all-purpose timber.

## **A-2. RECOMMENDED CODE OF MANUFACTURE OF BLANKS FOR DOBBY BARRELS**

**A-2.1** It is recommended that timber may be converted into straight grained blanks of suitable size. However, a slope of grain not exceeding 1 in 16 should be permitted in the converted blanks. The blanks should then be seasoned under proper conditions of drying to the required moisture content ( see also IS : 1141-1958 \*). The moisture content of well-seasoned blanks should not be more than 12 percent nor less than 8 percent at the time of manufacture of barrels.

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\*Code of practice for seasoning of timber ( tentative ). ( Since revised ).

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Menak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

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